

REMARKS

Claims 1-62 are now pending in the above-captioned application.

REJECTION UNDER 35 U.S.C. §102

Claims 1-62 were rejected under 35 U.S.C. §102(b) as being anticipated by Brame, Bateman or Minter. Applicant respectfully traverses this rejection.

Claims 1-62 were rejected under 35 U.S.C. §102(e) as being anticipated by Bateman. Applicant respectfully traverses this rejection.

In order to be complete, an anticipation-type rejection must contain two elements:

1. The reference must qualify as "Prior Art" under one of the sections of 35 U.S.C. §102; and
2. The reference must explicitly teach *ALL* of the features of the claimed invention.

The first three references cited by the Examiner have effective dates more than one year prior to applicant's filing date. However, none of the references teach all of the claimed elements of the present invention. Thus, the §102 rejection fails.

Each reference is applied separately, and thus will be addressed one at a time.

Minter, U.S. Patent No. 5,506,590 discloses an aircraft-mounted system for warning pilots. See Abstract and Col. 18, lines 33-49. Minter uses a pair of antennas mounted above and underneath the wing of the aircraft to detect whether the transponder signal from another aircraft is coming from the same altitude based upon relative time of arrivals of the signals. Applicant cannot find anywhere in this reference a mention of a ground-based system.

The claims of the present application recite a ground-based system and method in the preamble. Applicant appreciates that some Examiners do not give any weight to limitations in the preamble in the claim. Applicant has amended the claims to recite that the tracking means comprises a ground-based system, a feature neither taught nor suggested by Minter.

This feature is hardly trivial. The apparatus of Minter requires the installation of antenna(s) in the aircraft as well as electronics to warn the pilot. Weight in an aircraft is always a critical issue, and no more so than in small, general aviation (GA) and light commercial aircraft. Cost is also an important issue, as is maintenance. As set forth in the Specification of the present application, the ground-based system of the present invention can determine whether an aircraft has fallen below minimum safe altitude (or other parameters) and warn the pilot. Heavy cumbersome electronics and systems are not required.

Applicant also notes that some of the features of the dependent claims do not appear to be taught by Minter. Minter appears to be directed toward collision avoidance as a primary embodiment. It is not clear whether Minter also teaches MSAW warnings, noise abatement warnings, or other types of warnings (e.g., restricted airspace or the like).

Bateman et al. U.S. Patent No. 4,646,244, discloses a terrain advisory system. This Patent appears to describe the systems known in the art as defined in the BACKGROUND of the Specification of the present application. In particular, it appears Bateman (see Abstract) discloses an aircraft Terrain Advisory System which relies upon a database of terrain of interest, all mounted on or in the aircraft. As noted in the BACKGROUND of the present application, this system suffers from the problems of Minter above (weight, cost, maintenance, complexity) with the additional disadvantage that each aircraft database would have to be updated when new obstructions (buildings, towers, etc.) are constructed near an airport.

Again, the claims of the present invention have been amended to make it clear that the present system uses a ground-based tracking system, not a system located in the aircraft. In addition, it does not appear that Bateman discloses anything other than terrain awareness. Thus, other applications such as collision avoidance, noise abatement profile warning, and the like do not appear to be taught by Bateman.

Brame, U.S. Patent No. 4,224,669, issued September 23, 1980 discloses a Minimum Safe Warning, Indication and Warning System. This reference appears to be similar to the Bateman Patent in that it discloses an aircraft-mounted system, which relies upon a database in the aircraft to detect when MSAW warnings should be given. Applicant's comments regarding Bateman are also applied to Brame.

Bateman, U.S. Patent No. 6,445,310 was applied in a 102(e) rejection, as the effective date of this application does not appear to predate applicant's earliest filing date. However, applicant need not address the date issue at the present time (but reserves the right to swear behind this reference if appropriate and permissible) as the reference also appears to be an aircraft-mounted system.

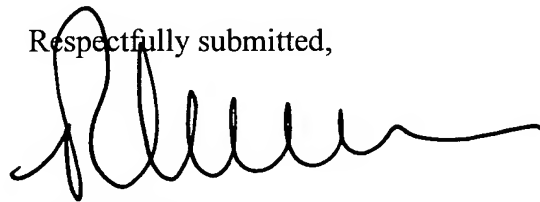
Bateman appears to teach little more than an improved CFIT avoidance terrain profile, which can be used in a terrain avoidance system. While this profile may or may not be an improvement over the Prior Art, it does not appear to teach or suggest a ground-based system.

CONCLUSION

None of the references cited by the Examiner teach or suggest the ground-based system of the present invention as recited in the claims as amended. In addition, none of the references teach all of the ancillary features of the present invention as set forth in the dependent claims. As such, the claims as presently presented are now in condition for allowance.

An early Notice of Allowance is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Robert P. Bell', with a long horizontal flourish extending to the right.

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